

## "DirfisMushroom P.C." From Science to the Market



Dirfis mushrooms

### Keywords

wild mushroom picking

mycosilviculture

edible mushrooms

truffles

### NWFP

Wild Mushrooms & Truffles

### Scale

National



### Context

"Dirfis Mushrooms" facilities include a substrate plant, 20 mushroom growing tunnels, a modern processing facility 750m<sup>2</sup> and an olive grove. The company yearly produces more than 300T oyster mushrooms, 600K oyster substrate blocks, 20T *Lentinula*, 10T dry wild mushrooms and 0.5T fresh wild truffle. Its portfolio range over 100 products (edibles and medicinals). It is certified as GlobalG.A.P. and BIO (ISO 22000:2005). Its customers include the largest supermarket chains in Greece, hypermarkets, hotels, restaurants, traditional and delicatessen grocery stores and e-shops. It exports to US, Germany, Israel. Since 2009 Dirfis has gained many gastronomy prizes, quality and innovation awards.



### Objective

The last 15 years, mushrooms became a valuable part of Greek consumers' diet. New mushroom plants have launched, special cultivated varieties (*Lentinula*, *Hericium*, etc.) have been considerably growing and many young people make a living hunting truffles and wild mushrooms. After the economic crisis of 2009, people living in big cities returned to their villages starting business in forestry or agriculture. "Dirfis mushrooms" was established in 2003 in Mount Dirfis (Euboea) by two agronomists-mycologists (Agricultural University of Athens), Lefteris Lachouvaris and Thanassis Mastrogiannis, representing a success story of the hidden potential of the mushroom and truffles related activities.



## Results

“Dirfis mushrooms” collaborates with the Agricultural University of Athens (General and Agricultural Microbiology Department, the Harokopio University (School of Health science) for the development of new products and advancement of mushroom science and technology. Running research programs include the valorization of agricultural by- products as new substrates for the production of Pleurotus mushrooms, development and clinical evaluation of innovative polyvalent functional foods with enhanced content in bioactive compounds (vitamin D and antioxidants). Dirfis also produces solar dried mushrooms naturally enriched with vitamin D. The latest has received a lot of media attention helping consumers to get familiar with the new functional foods.



## Recommendations

Concerning wild mushrooms Dirfis has a well-organized network of trained pickers who collect mushrooms in natural fir, oak and beech forests. Dirfis carries out regular controls on random samples (wild and cultivated) following EU legislations concerning heavy metals contamination risks (EC1881/2006, EU2018/73) and maximum residue levels of pesticides (EC 299/2008), while fresh mushrooms are handled according to the law N 2090/31/07/2014. Greek authorities have so far not managed to follow the enormous increasing of mushroom business and common commercial wild or cultivated taxa are absent from the Ministry of Agriculture lists. This has as a sequence wild mushroom trade without health safety rules, illegal trade and problems in imports of well-known cultivated mushrooms from third countries because of the inefficiency of national authorities.



## Impacts and weaknesses

There is demand for a rapidly implemented flexible managing system concerning wild mushrooms. This could start as pilot for the 6-7 most commercial taxa. Pickers and traders should declare everyday traded quantities through the existing electronic system of the Ministry of Agriculture. Edible forest products should be defined as food (under the responsibility of the Ministry of Agriculture), while the Ministry of Environment must manage and control collections in forests. Wild mushroom pickers should be declared as farmers (EU 1185/2013). By taking the “GR code” from the “Rural economy & veterinary directorate” should automatically register to the official record book of national producers.



## Future developments

The development and establishment of commercial quality standards either on fresh or processed cultivated and wild mushrooms will help facilitate national and international trade, encourage high quality production, improve profitability and protect consumer interests. Definition of produce, provisions concerning quality, minimum requirements, classification, provisions concerning sizing, tolerances, presentation, marking and origin of the product will help Greek companies to expand their activities in new markets.



Dirfis Mushrooms - exterior view of the packaging plant, photo : Dimitrios Malliaris

## Further information

<http://www.manitariadirfis.gr/en>

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### About INCREDIBLE Project

INCREDIBLE project aims to show how Non-Wood Forest Products (NWFP) can play an important role in supporting sustainable forest management and rural development, by creating networks to share and exchange knowledge and expertise. 'Innovation Networks of Cork, Resins and Edibles in the Mediterranean basin' (INCREDIBLE) promotes cross-sectoral collaboration and innovation to highlight the value and potential of NWFPs in the region.



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